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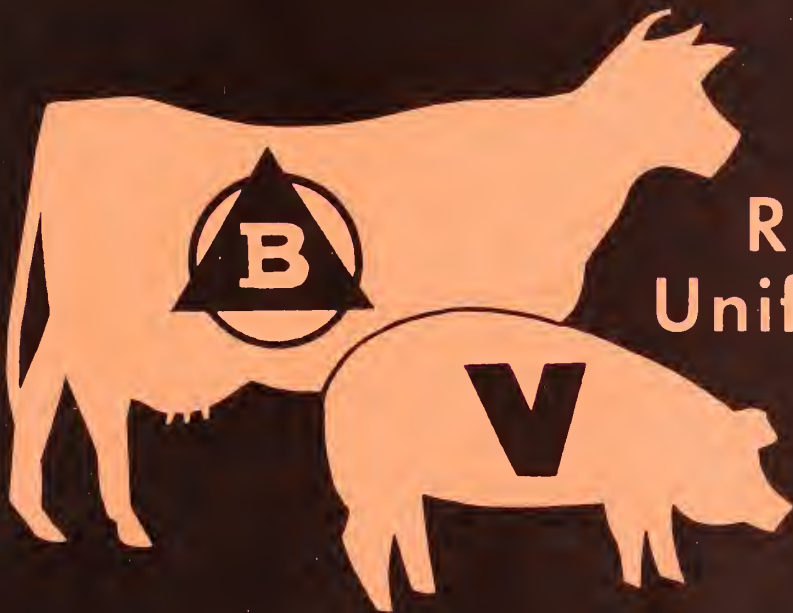
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PRODUCTION SECTION
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BRUCELLOSIS ERADICATION



Recommended
Uniform Methods
and Rules

EFFECTIVE NOVEMBER 1976

Animal and Plant Health Inspection Service
U.S. Department of Agriculture

Foreword

This publication is the Brucellosis Eradication Uniform Methods and Rules for establishing and maintaining:

1. Certified Brucellosis-Free Herds of Cattle
2. Modified Certified Brucellosis Areas
3. Certified Brucellosis-Free Areas
4. Validated Brucellosis-Free Herds of Swine
5. Validated Brucellosis-Free Areas

The provisions of these methods and rules were approved by the United States Department of Agriculture's Animal and Plant Health Inspection Service as the minimum standards for achieving and maintaining certified and validated herd and area status after careful consideration of the recommendations by the United States Animal Health Association. Except where specified, the provisions of Chapter 1, Part I - Definitions, and Part II - Recommended Procedures apply similarly to bison.

This publication may be amended in the future by the replacement or addition of revised pages.

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Brucellosis Eradication

Uniform Methods and Rules

Effective February 1977

Chapter I—Bovine Brucellosis

Part I—Definitions

A. REACTOR¹—Official vaccinates of dairy breeds 20 months of age and over; official vaccinates of beef breeds 24 months of age and over as evidenced by the presence of the first pair of permanent incisor teeth; or official vaccinates under these ages that are parturient (springers) or postparturient that disclose complete standard plate test (SPT) or standard tube test (STT) agglutination reactions in the blood titer dilution of 1:200 or higher; are positive to the brucellosis card test; or are found infected by other diagnostic procedures.

All other cattle more than 6 months of age disclosing a complete agglutination reaction in the blood titer dilution of 1:100 or higher; are positive to the brucellosis card test; or are found infected by other diagnostic procedures.

B. SUSPECT¹—Official vaccinates of dairy breeds 20 months of age or over; official vaccinates of beef breeds 24 months of age and over as evidenced by the presence of the first pair of permanent incisor teeth; or official vaccinates under these ages that are parturient (springers) or postparturient that disclose any SPT or STT agglutination reactions in the dilution of 1:100 or incomplete agglutination in the 1:200 dilution.

All other cattle more than 6 months of age disclosing any agglutination in the blood titer dilution of 1:50 or incomplete agglutination in the 1:100 dilution.

C. NEGATIVE¹—Official vaccinates of dairy breeds 20 months of age or over; official vaccinates of beef breeds 24 months of age and over as evidenced by the presence of the first pair of permanent incisor teeth; or official vaccinates under these ages that are parturient (springers) or postparturient that disclose SPT or STT reactions of not more than complete agglutination in the 1:50 dilution and are negative to the brucellosis card test if performed; or are negative to the brucellosis card test if it is the only test procedure used.

All other cattle more than 6 months of age that disclose an agglutination reaction of less than incomplete agglutination in the 1:50 dilution and are negative to the brucellosis card test if performed; or are negative to the brucellosis card test if it is the only test procedure used.

D. HERD TEST—The herd test must include all cattle over 12 months of age except steers, spayed heifers, official vaccinates of dairy breeds under 20 months of age, and official vaccinates of beef breeds under 24 months of age as evidenced by the presence of the first pair of permanent incisor teeth which are not parturient (springers) or postparturient. Bulls, steers, and female cattle being held in feedlots which meet the conditions defined in Part I, E (QUARANTINED FEEDLOT), are exempted from herd test requirements. Breeding cattle tested shall be identified with an official eartag or other permanent identification.

¹ Also see part II, G—"Classification of Animals."

A herd is a group of cattle maintained on common grounds for any purpose, or two or more groups of animals under common ownership or supervision geographically separated but which have an interchange or movement of animals without regard to health status. Herd test decisions under this definition must be based on sound epidemiological evidence.

The herd test conducted for the recertification of Certified Brucellosis-Free Herds needs to include only those breeding animals that are postparturient or are 24 months of age or older.

E. QUARANTINED FEEDLOT—A quarantined feedlot shall be a confined area under the direct supervision and control of the State Livestock Official who shall establish procedures for accounting of all animals entering or leaving such quarantined feedlot. The quarantined feedlot shall be maintained for finish feeding of animals in drylot with no provision for pasturing or grazing. All animals leaving such feedlot must move only for immediate slaughter in accordance with established procedures for handling quarantined animals including issuance of permits prior to movement, segregation from other livestock sold for purposes other than slaughter at all points enroute to slaughter, cleaning and disinfection of pens before reuse, and record of proof of slaughter.

F. FEEDLOT—A confined drylot area for finish feeding of animals on concentrated feed with no facilities for pasturing or grazing. All animals in feedlots shall be held separate and apart from all breeding animals.

G. MARKET TEST ANIMALS—Test-eligible animals moving in trade through auction markets, stockyards, or to slaughtering establishments; also those animals assembled at farms or ranches that are being readied for immediate movement to markets, stockyards, or slaughtering establishments or other sales. Such animals shall be identified by eartag or backtag to the herd of origin prior to or at the first point of concentration in marketing channels.

H. APPROVED BRUCELLA VACCINE—A product that is approved by and produced under license of the United States Department of Agriculture for injection into cattle for the purpose of enhancing the resistance to brucellosis.

I. OFFICIAL VACCINATE—A female bovine animal of a dairy breed vaccinated against brucellosis with an approved brucella vaccine while from 2 to 6 months (60 to 179 days) of age. A female bovine animal of a beef breed vaccinated against brucellosis with an approved brucella vaccine while from 2 to 10 months (60 to 299 days) of age. All vaccination must be conducted under the supervision of a Federal or State veterinary official. Vaccinated animals must be permanently identified as vaccinates and reported at the time of vaccination to the appropriate State or Federal agency cooperating in the eradication of brucellosis. When vaccination is performed, it should be done as soon as possible after 2 months of age to reduce the problem of residual titers.

J. IDENTIFICATION OF VACCINATES—Vaccinated animals are to be permanently identified as vaccinates by tattoo and by official vaccination eartag. Brands may be used in addition to tattoo and eartag. Vaccination tattoos must be applied in the right ear. The tattoo will include the U.S. Registered Shield and V, which will be preceded by a number indicating the quarter of the year and will be followed by a number corresponding to the last digit of the year in which the vaccination was done. Official vaccination eartags shall be applied to the right ear. The eartag will include the State prefix and a V, followed by a number which individually identifies each vaccinated animal. Registration or individual animal identification tattoos may be substituted for the official eartags. Brands, if used, must be applied to the right jaw. The V will be applied in one of four different positions—the open end facing up, forward, down, or toward the back. The brand indicates in which year the vaccination was conducted. The fifth year will repeat the first year, and so on indefinitely. In 1976, the V should be placed with the open end facing down, and in succeeding years it should proceed clockwise.

K. SUCCESSFUL TRACEBACK OF REACTORS—A successful traceback occurs when the premises or herd of origin of a market test reactor, including those animals identified as reactors on laboratory confirmation of market tests, is located and the herd is tested as is deemed appropriate. If all animals at the premises of origin were sold for slaughter, a successful traceback can also be claimed. Tracing to dealers, feedlots, commission firms, and such are not considered successful tracebacks of reactors.

L. QUALIFIED HERD—A herd of cattle in a noncertified area for which the State has records showing that the herd has been subjected to official testing for brucellosis in accordance with the procedures for herd tests for initial modified area certification specified in part V of these Brucellosis Eradication Uniform Methods and Rules within 12 months prior to movement and that the herd is not known to be affected with brucellosis.

M. EXPOSED ANIMALS—Animals that are part of a known infected herd or have been in contact with brucellosis reactors in marketing channels for periods of 24 hours or periods of less than 24 hours if the reactor has recently aborted, calved, or has a vaginal or uterine discharge are considered to be exposed regardless of the blood test results and must be placed under quarantine and restricted pending slaughter or testing after return to herd of origin.

Part II—Recommended Procedures

A. LABORATORIES—Blood samples are to be tested only by cooperating State-Federal laboratories or by such persons as may be authorized to conduct the standard agglutination tests or the card test. All samples initially tested at other than cooperating State-Federal laboratories shall be promptly submitted and confirmed at the cooperating State-Federal laboratory.

B. REPORTING—Activities conducted privately or as part of the official brucellosis eradication program, such as results of agglutination tests or vaccination, must be reported immediately to State-Federal cooperating agencies. A complete epidemiological report shall be prepared and filed on each infected herd.

C. SUPERVISION—The official Brucellosis Eradication Program shall be supervised by full-time State or Federal veterinarians.

D. QUARANTINES—All cattle, except steers and spayed heifers but including officially vaccinated heifers and calves in infected herds, must be confined to the premises until the herd is freed of brucellosis or sold for slaughter under permit. Two consecutive negative herd tests are required for release of quarantine with the first test occurring not less than 30 days after the removal and slaughter of all reactors and the second test to occur not less than 90 days following the first negative test. In Certified Brucellosis-Free Areas, a third negative herd test is recommended 90 days after the second negative test for quarantine release. Exceptions on the interval between tests required for the release of quarantine are allowable only when *Brucella abortus* Strain 19 organisms have been isolated from the reactor animal or all epidemiologic evidence is consistent with a *Brucella abortus* Strain 19 infection and not with virulent infection. Herds of origin of market cattle test reactors which fail to reveal additional reactors on a test of the entire herd would not be required to be held under quarantine for additional testing unless evidence suggestive of brucella infection or exposure thereto is present.

E. RETESTS OF INFECTED HERDS—Retests of infected herds are to be conducted at approximately 30-day intervals until the herd has passed at least one negative herd test following the removal and sale for slaughter of the last reactor. Additional consecutive negative herd tests are required to qualify herds for release of quarantine as indicated in part II-D. Continuation of testing is strongly recommended at 30-day intervals between the first and second negative herd tests which qualify the herd for quarantine release.

F. CLEANING AND DISINFECTION—Premises shall be cleaned and disinfected under regulatory supervision within 15 days following the removal of reactors or the entire herd for slaughter. An extension of time may be considered under extenuating circumstances. Exemptions from cleaning and disinfection requirements, when indicated, can be authorized by the cooperating State-Federal officials directing the brucellosis program activities within the State.

G. CLASSIFICATION OF CATTLE

1. Card test

Card test results are classified as either negative or positive.

2. Standard tube test or standard plate test

The blood titers of cattle tested by the STT or SPT methods are classified by use of the following:

Official vaccinates

1:50	1:100	1:200	
—	—	—	NEGATIVE
I	—	—	NEGATIVE
+	—	—	NEGATIVE
+	I	—	SUSPECT
+	+	—	SUSPECT
+	+	I	SUSPECT
+	+	+	REACTOR

All others

1:50	1:100	1:200	
—	—	—	NEGATIVE
I	—	—	SUSPECT
+	—	—	SUSPECT
+	I	—	SUSPECT
+	+	—	REACTOR
+	+	I	REACTOR
+	+	+	REACTOR

3. Semen Plasma Test

The semen plasma test is approved as an official test in bulls used for artificial insemination when used in conjunction with the card test and/or the standard tube test or plate test. The classification of such animals shall be based on the maximum agglutination titer of either test.

4. Buffered Acidified Plate Antigen Test

Buffered-antigen screening tests may be used to classify animals negative on surveillance samples collected at slaughter and at livestock markets. Such tests may also be used to screen routine samples collected on farms where there is no evidence of brucellosis. On tests of suspicious and infected herds, buffered-antigen tests may be used in addition to other official tests.

5. Reclassification of Reactors

Animals initially classified Reactors under part I, A, may be eligible for reclassification provided a complete epidemiological investigation of the herd is conducted, including a serological test of the herd, if necessary, and there is no evidence of brucella infection or exposure thereto; and, provided final classification is determined by a trained brucellosis epidemiologist. The herd must remain under quarantine pending final classification.

H. IDENTIFICATION OF REACTOR CATTLE—All reactor cattle are to be permanently identified by branding with the letter B (at least 2 x 2 inches) placed on the left jaw. An approved reactor tag must be placed in the left ear. Identification of reactors must be accomplished within 15 days of the test date. The time may be extended for reasons mutually acceptable to the cooperating State and Federal officials in charge.

I. IDENTIFICATION OF EXPOSED CATTLE—All exposed cattle moving from a premises of origin or from a livestock market to a quarantined feedlot or to slaughter shall be identified by branding with heat the letter “S” (at least 2 x 2 inches) placed on the left jaw or high on the tailhead so as to be visible from ground level prior to movement, or exposed cattle may be identified and permitted to a livestock market where they shall be identified by “S” brand upon arrival. Exposed cattle returned from the livestock market to the herd of origin under quarantine pending further testing are exempt from this requirement. Exposed cattle may move from the farm of origin or from specifically approved markets direct to Federal or State inspected slaughtering establishments in a sealed truck without permanent identification by “S” brand. Provided: The entire truckload of cattle or other susceptible species

must be destined to slaughter at a single slaughtering establishment. No mixed loads of slaughter and feeder or breeding cattle may be included in such shipments. The entire load must be consigned direct to slaughter with no diversion into holding feedlots. Truck seals are to be placed and broken only by State or Federal regulatory personnel during regular work hours. An official shipping permit with eartag identification of each animal in the shipment and the appropriate seal number recorded, shall accompany each shipment. Cattle to be transported in sealed vehicles must remain on the premises until the appropriate regulatory personnel writes the permit and seals the vehicle. No post-authorized permits may be approved.

J. IMMEDIATE SLAUGHTER OF REACTORS AND EXPOSED CATTLE—Reactor cattle must be sold for slaughter and removed from the premises under State or Federal permit within 15 days of the date of identification. Reactors and exposed cattle shall remain on the premises where disclosed until a State or Federal permit for movement to slaughter has been obtained. Movement for immediate slaughter must be to a slaughtering establishment where Federal or State inspection is maintained or to a State or Federal approved market for sale to such slaughtering establishment. Both reactor and exposed cattle upon delivery to the slaughtering establishment shall be slaughtered as soon as practical. The time may be extended for reasons mutually acceptable to the cooperating State and Federal officials in charge.

K. MOVEMENT OF QUARANTINED AND EXPOSED CATTLE—Quarantined and exposed cattle must be moved under permit for immediate slaughter or to a quarantined feedlot or returned to the herd of origin. When moved, the cattle must be maintained separate and apart from all other classes of livestock, and the specially designed pens reserved for this purpose at livestock markets or trucking facilities must be thoroughly cleaned and disinfected before reuse. Calves under 6 months of age which are nursed by brucellosis exposed cows may move from the quarantined premises under permit within 10 days after a negative brucellosis test on the dam. Calves under 6 months of age that are nursed by brucellosis reactor or exposed cows may move from the quarantined premises under permit provided they have been weaned for not less than 30 days immediately preceding the movement.

L. ENTERING PREMISES—Persons engaged in the Brucellosis Eradication Program shall be authorized to enter premises to carry out eradication procedures.

M. SERVICES TO OWNER—Services shall be rendered without expense to the livestock owner as long as funds for such purposes are available; however, owners are to provide for handling of their cattle. Contracts with accredited veterinarians, nonprofessionals, other State and Federal agencies, or with the management of privately owned firms are to be used as needed to assist State and Federal animal health personnel accomplish necessary sample collections, animal identifications, and other activities. Within 3 days of an initial herd test, an owner may request an additional test on reactors at his expense provided such request is based on sound epidemiological evidence and provided all animals remain under herd quarantine.

N. HERD DEPOPULATION—Herds with high animal infection rate or chronic infection of long duration shall be reviewed for possible depopulation. All infected herds shall be reviewed for possible depopulation in States which previously had been free of brucellosis.

O. DIAGNOSTIC REAGENTS FOR BRUCELLOSIS—Brucella antigens used for the diagnosis or detection of brucellosis in domestic livestock will be restricted to regulatory personnel and approved accredited veterinarians.

P. INDIVIDUAL HERD PLAN WITH ADULT VACCINATION—Under this plan, the entire herd is to be tested with vaccination of the nonreacting cattle. Vaccination will be conducted within 10 days after completion of test and permanent identification with removal of reactors from premises. This plan is to be used only in problem herds where there is evidence of either a rapid spread of brucellosis in the herd or a chronic infection of longstanding and where the normal test and slaughter procedures have not been successful in eliminating brucellosis from the herd. Such procedures may be initiated only upon written permission of the State and Federal officials directly responsible for program activities in the State in which the herd is located. All animals so vaccinated shall be identified by an “AV” hot brand on the right jaw and shall be permanently restricted to authorized premises or moved under permit to quarantined feedlots or to slaughter. Herds shall resume test and slaughter procedures no later than 6 months following initial adult vaccination. Testing will be at intervals recommended by the supervising epidemiologist. Adult vaccination in replacement animals which have passed a negative test within 10 days prior to entry may be used in a herd for a period not to exceed 24 months after initial adult vaccination of the herd. Adult vaccination herd plan may not be used in Certified Brucellosis-Free States without approval of the State veterinarian and the Deputy Administrator, Veterinary Services, Animal and Plant Health Inspection Service.

Part III—Participation in Herd or Area Certification Plans

A. OBTAINING INITIAL CERTIFICATION STATUS—To obtain initial certification status, the herds or area must use one or more of the accepted methods listed in part IV, V, or VI for qualifying the herds or area and must meet all of the qualifying standards given under part IV, V, or VI.

B. MAINTAINING CERTIFICATION STATUS—State and Federal officials in charge of the program activities in each State are responsible for conducting a continuous evaluation on the efficiency of local procedures for locating and eliminating infected cattle. The minimum standards as described for each plan in parts IV, V, and VI, Brucellosis Eradication Uniform Methods and Rules, must be met or exceeded throughout the certification period to maintain continuous status. An annual report showing the degree of uniformity and adequacy of the surveillance, suspicious and infected herds disclosed, infection rates, and adequacy of program standards within the area, is required to maintain certification status of an area larger than a county.

C. TERMINATING CERTIFICATION STATUS—Herd or area certification status may be terminated at any time during the period with 10-days notice if the herd or area does not maintain adequate surveillance measures or fails to comply with quarantine, testing schedules, initial testing schedules for suspicious herds detected by the surveillance measures, excessive herd infection rates due to repeated failure to maintain program standards, or proper disposal of reactors or exposed animals unless legal action against the livestock owner has been initiated by States' attorneys and is in progress.

D. REINSTATEMENT OF CERTIFICATION STATUS—When herds or areas lose certification status because of deficiencies in levels of surveillance or in procedures necessary for locating infected herds, controlling infected and exposed animals, and eliminating infected animals as prescribed under the various plans and procedures, the certification status may be reinstated upon presentation of sufficient evidence showing that the deficiencies have been corrected. Areas in which the deficiencies have not been corrected within 6 months of the termination of the status must qualify as for initial certification.

Part IV—Certified Brucellosis-Free Herds of Cattle

A. QUALIFYING METHODS—A herd may qualify by one or more of the following methods:

1. Milk Ring Test (BRT)

Initial Certification: A minimum of three consecutive negative milk ring tests conducted at not less than 90-day intervals, followed by a negative herd blood test conducted within 90 days after the last negative milk ring test.

Recertification: Milk ring test procedures are not used for herd recertification.

2. Complete Herd Test

Initial Certification: At least two consecutive negative tests not less than 10 months nor more than 14 months apart. Additional herd tests may be conducted if the owner so desires or if the certifying agencies deem it necessary.

Recertification: A negative herd test conducted within 60 days of each anniversary date is required for continuous certification. If the herd certification test is conducted within 60 days following the anniversary date, the certification period will be 12 months from the anniversary and not 12 months from the date of the recertifying test. If a herd test for recertification is not conducted within 60 days following the anniversary date, then certification requirements are the same for initial certification.

B. QUALIFYING STANDARDS

1. Size of Area - Herd basis including all offspring

2. Length of Status - 12 months

3. Testing Period:

Initial Certification: 10 to 14 months (minimum of 6 months if BRT is used).

Recertification: A negative blood test of all eligible cattle is to be conducted within 10 to 14 months of the last certification date for continuous status.

4. Herd Infection Rates—The individual herd must disclose no evidence of infection at the time of initial certification or recertification.

5. Animal Infection Rates—The individual animals must disclose no evidence of infection at the time of initial herd certification or recertification.

6. Suspects—Animals classified as suspects shall be tested sufficiently to determine their status. The various supplemental tests shall be conducted on blood samples, and the results evaluated by a brucellosis epidemiologist and a determination made that an infection does not exist before the surveillance on suspects is dropped. If the suspects requiring retest are not available, then a complete herd test is necessary.

7. Herd Status, if infection occurs—When one or more reactors are disclosed in a certified herd or in a herd under test for initial certification, it shall be considered infected and the quarantine and retest provisions in Part II, D and E shall apply.

Initial Certification: A herd qualifies for initial Certified Brucellosis-Free status when free of infection, all provisions for release of quarantine have been met, and when the additional provisions required under Part IV, A-1, and A-2 have been met.

Recertification: If a retest of a certified herd, or of animals from such a herd, reveals only one reactor, the certification status will be suspended until all provisions for release of quarantine have been met and until a negative herd retest is conducted at least 60 days following removal of such reactors. If more than one reactor is disclosed, then herd certification is terminated until all provisions for release of quarantine have been met, and when additional provisions for initial Certified Brucellosis-Free herd status required under Part IV, A-1, and A-2 have been met.

Herd retests for quarantine release, and to fulfill the provisions required under Part IV, A-1, and A-2, may be conducted concurrently.

8. Movement of Cattle into a Certified Brucellosis-Free Herd From:

a. Quarantine Feedlots - No animal consigned to a quarantined feedlot may be maintained in association with a Certified Brucellosis-Free Herd.

b. Other Feedlots - Animals consigned to feedlots other than quarantined feedlots may be held on premises with a Certified Brucellosis-Free Herd provided all animals in the feedlot are maintained in isolation, separate and apart from all animals in the Certified Brucellosis-Free Herd.

c. Slaughter Channels - Cattle consigned for immediate slaughter may not be diverted en route to a Certified Brucellosis-Free Herd.

d. Certified Brucellosis-Free Herds or Areas - No test requirements on breeding or dairy cattle originating from Certified Brucellosis-Free Herds or Areas. Animals added under this provision shall not receive new herd status for sale purposes until they have been members of the herd for at least 30 days and are included in a complete herd retest.

e. Modified Certified Areas - Official vaccinates of dairy breeds less than 20 months of age and beef breeds less than 24 months of age as evidenced by the presence of the first pair of permanent incisor teeth which are not parturient (springers) or postparturient from herds not under quarantine may move on a certificate verifying the vaccination status. Other animals from herds not under quarantine must be tested negative for brucellosis within 30 days prior to the date of movement and must be retested negative between 60 and 120 days after being moved. Animals added under this provision shall not receive new herd status for sale purposes until they have been members of the herd for at least 30 days and are included in a complete herd test.

f. Noncertified Areas - Herd of origin must have passed a negative herd blood test within the previous 12 months. Official vaccinates of dairy breeds less than 20 months and beef breeds less than 24 months of age from such herds as evidenced by the presence of the first pair of permanent incisor teeth which are not parturient (springers) or postparturient may move on a certificate verifying the vaccination status. All other cattle from such herds must have an additional retest not less than 60 days from the date of the negative herd test and within 30 days of the date of movement. Animals added under this provision shall not receive new herd status for sale purposes until they have been members of the herd at least 30 days and are included in a complete herd retest.

Part V—Modified Certified Brucellosis Areas

A. QUALIFYING METHODS—(An area may qualify by one or more of the following methods)

1. **Milk Ring Test (BRT)**—The milk ring test shall be conducted at least three times per year at approximately equal intervals, and all herds with positive milk ring test results must be tested within 30 days from the date of laboratory tests. To qualify individual herds for initial Modified Certified Brucellosis status, the four most recent consecutive tests for each herd during the testing period must be negative. In new or recently assembled dairy herds, one or more consecutive negative ring tests will qualify the herd for area certification purposes provided each milk ring test on samples from such herds are negative. The milk ring procedure will be adjusted in accordance with herd size. The quality of the samples used for the milk ring test will be monitored at the time of collection.

2. Market Cattle Identification Program (MCI)

a. Coverage

Initial Certification: At least 15 percent (10 percent per year during the 18-month testing period) of the breeding cows over 2 years of age from each herd not covered by the milk ring test.

Recertification: At least 30 percent (10 percent per year during the 3-year testing period) of the breeding cows in the area over 2 years of age from herds not covered by the milk ring test.

b. **Reactors** - At least 80 percent of the reactors must be successfully traced to the herd of origin and a herd test conducted. Herd tests shall be conducted within 30 days of disclosure of market cattle test reactors or the herds shall be confined to the premises under quarantine. All market cattle test reactor herds shall be tested within 6 months of disclosure of the market reactor. If 70 to 80 percent of the reactors can be successfully traced, then the area may be provisionally qualified under this method, but an annual report of the MCI program coverage in that area will be required.

c. **Reporting Results** - All MCI reactors, including the successful and unsuccessful tracebacks, and tests of herds of origin are to be reported in the data when requesting area certification. The data summarizing the successful and unsuccessful tracebacks for cattle with backtags and for cattle without backtags should be presented separately.

3. Complete Herd Test

Initial Certification: Complete herd test of all eligible cattle in each herd which has not qualified for initial certification under Part V, A-1 or A-2.

Recertification: Complete herd test of at least 20 percent of the representative herds in the area. A different 20 percent will be selected for each recertification. When less than 30 percent of the breeding cows in the area over 2 years of age from herds not covered by a milk ring test are tested under MCI during the 3-year testing period, then a complete herd test of at least 20 percent of the representative herds in the area that have not qualified by MCI or BRT coverage is needed.

A complete herd test of all herds with direct animal contact with an infected herd must be conducted during the period the infected herd is under test and quarantine. A second test at the time of release of the infected herd is recommended. This provision applies equally for initial certification and recertification of areas.

B. QUALIFYING STANDARDS

1. Size of Area - Usually county; may be other political subdivision. The extent of the area shall be determined by the cooperating State and Federal agencies.
2. Length of Status - 3 years.
3. Testing Period - 18 months immediately preceding request for initial certification; 3 years for recertification.
4. Herd Infection Rate - Not more than 5.0 percent of the herds or one herd, whichever is greater, in the area shall have been found to be infected during the testing period. If the herd infection rate is more than 5.0 percent, then the results of the last retest of a sufficient number of the infected herds applied not less than 60 days following removal and slaughter of reactors can be used to reduce the herd infection rate to not more than 5.0 percent.
5. Suspects - Animals classified as suspects shall be retested at 30-60 day intervals one or more times until the animals' status can be reasonably determined. The various supplemental tests (ME, RIV, CF, and APA at pH 3.50, pH 3.25, and/or pH 3.0, etc.) shall be conducted on blood samples, and the results evaluated by a brucellosis epidemiologist and a determination made that an infection does not exist before the surveillance on suspects is dropped. If the suspects requiring retest are not available, then a complete herd test is necessary.
6. Area Status, if Excessive Infection Rates Occur - If an area does not qualify for recertification because of excessive herd or animal infection rates, even after herd retest results are used, it shall become necessary to make a complete area retest. If the area completes the necessary testing to qualify for recertification within 6 months after the due date, consideration will be made for reinstating such an area.
7. Other Considerations - A concerted effort through effective screening programs and extensive epidemiologic investigations to locate infection and to eradicate the disease is required.

MCI samples showing a standard agglutination titer at 1:25 or above, or that are positive to the card test, shall be tested further by use of the supplemental tests. All of the results are to be furnished to the State of origin. The test results and herd investigation will be reviewed by a brucellosis epidemiologist in arriving at a diagnosis. Those animals requiring a followup herd blood test must be successfully traced to the herd of origin as indicated in A-2, b, above. Herds which do not progress favorably under routine testing procedures may be considered for enrollment in a brucellosis problem herd program under the direct supervision of a trained brucellosis epidemiologist. Such enrollment must be for the eradication of brucellosis from the herd and may include altered testing schedules, management practices, supplemental testing, etc., as approved by the owner and officials in charge of program activities in the State.

8. Movement of Cattle Into or Within Modified Certified Areas for the Following Purposes:

a. Feeding:

1. Movement Into Quarantined Feedlots - Cattle originating from any herd in any area may be moved without test directly into a quarantined feedlot or to a public stockyard or specifically approved stockyard for sale and shipment to such quarantined feedlot. Cattle originating from herds known to be affected or from unqualified herds in noncertified areas may not be diverted en route for any other purpose.

2. Movement Into Other Feedlots - Cattle moved to feedlots, other than quarantined feedlots, must originate from herds not known to be affected with brucellosis from certified areas, and from qualified herds in noncertified areas. All such cattle must be maintained in isolation, separate and apart from all breeding stock.

b. Immediate Slaughter - Cattle originating in any herd in any area may be consigned without test for immediate slaughter directly to a slaughtering establishment or specifically approved stockyard for sale and shipment

to such slaughtering establishment. Cattle originating from herds known to be affected or from unqualified herds in noncertified areas may not be diverted en route for any other purpose. Cattle consigned for sale to slaughter at the first concentration point may not be diverted to a second concentration point for resale unless tested negative at the first concentration point.

c. Breeding, or Purposes other than 9a or 9b:

1. Movement of Cattle from Certified Brucellosis-Free Herds or Areas - There are no test requirements.

2. Movement of Cattle from Modified Certified Areas - Such cattle must be tested for brucellosis within 30 days prior to movement or at the first concentration or assembly point upon arrival. "Upon arrival" means either testing before the sale or after the sale, provided all cattle consigned are individually identified and traceable to the consignor and/or the herd of origin. Cattle from Certified Brucellosis-Free Herds, cattle of the beef breeds less than 24 months of age and of the dairy breeds less than 20 months of age as evidenced by the presence of the first pair of permanent incisor teeth, that are not parturient (springers) or postparturient from herds or lots not known to be affected with brucellosis are exempt from this test requirement.

3. Movement of Cattle from Noncertified Areas - Such cattle must originate in qualified herds and pass a negative test for brucellosis not less than 30 days from the date of herd qualification and within 30 days of the date of movement. Cattle of beef breeds less than 24 months of age and of dairy breeds less than 20 months of age as evidenced by the presence of the first pair of permanent incisor teeth, that are not parturient or postparturient and steers, and spayed heifers from qualified herds in noncertified areas are exempt from this test requirement.

d. All animals in herds or lots tested for brucellosis in which reactors are disclosed must be handled in accordance with the provision of the Uniform Methods and Rules, part II, paragraph K (Movement of Quarantined and Exposed Animals).

Part VI—Certified Brucellosis-Free Areas

A. QUALIFYING METHODS—An area may qualify by one or more of the following methods:

1. **Milk Ring Test** - The milk ring test shall be conducted at least three times per year at approximately equal intervals, and all herds with suspicious milk ring test results must be tested within 30 days, based on date of laboratory test. In new or recently assembled dairy herds, one or more consecutive negative ring tests will qualify the herd for area certification purposes provided each milk ring test on samples from such herds are negative. The milk ring test procedure will be adjusted in accordance with herd size. The quality of the samples used for the milk ring test will be monitored at the time of collection.

2. Market Cattle Identification Program

a. Coverage

Plan 1 Herd Basis - At least 5 percent per year during the testing period of the breeding cows over 2 years of age from each herd not covered by the milk ring test; or

Plan 2 Area Basis - At least 10 percent per year during the testing period of the breeding cows in the area over 2 years of age from herds not covered by the milk ring test.

b. **Reactors** - Minimum of 90 percent of the reactors must be successfully traced (see part I, K) to the herd of origin and a herd test conducted. Herd tests should be conducted within 30 days of disclosure of market cattle test reactors or the herds should be confined to the premises under quarantine. All market cattle test reactor herds shall be tested within 6 months of disclosure of the market reactor.

c. **Reporting Results** - All MCI reactors, including the successful and unsuccessful tracebacks, and test of herds of origin are to be reported in the data when requesting area certification. The data summarizing the successful and unsuccessful tracebacks for cattle with backtags and for cattle without backtags should be presented separately.

3. Complete Herd Test

Initial Certification: Complete herd test of all eligible cattle in each herd which has not qualified for initial certification under part VI, A-1 or A-2.

Recertification: Complete herd test of all eligible cattle in each herd qualifying under this method. It is strongly recommended that all herds known to have been infected during the current certification period should qualify by a complete herd retest at least 90 days following the test for quarantine release.

A complete herd test of all herds with direct animal-to-animal contact with an infected herd must be conducted at least once and preferably twice during the period the infected herd is under test and quarantine. The first test should be conducted at the earliest opportunity and the second test at the time of release of quarantine of the infected herd.

B. QUALIFYING STANDARDS

1. **Size of Area** - Usually county; may be other political subdivision provided it is located in a State in which all other areas have achieved initial Modified Certified Brucellosis or Certified Brucellosis-Free Area status. The extent of the area shall be determined by cooperating State and Federal agencies.

2. Length of Status - 6 years.

3. Testing Period

Initial Certification: 18 months immediately preceding request for certification. A 6-month extension, providing a 24-month period for accumulation of data for certification, is permissible if the 18-month period is insufficient to complete testing requirements.

Recertification: 18 months immediately preceding request for recertification. A 6-month extension, providing a 24-month period for accumulation of data for recertification, is permissible if the 18-month period is insufficient to verify the status of the area. Test data for the entire 6-year certification period must be submitted to support recertification where there is indication that the surveillance programs or the epidemiological investigations in the area have not been effective in detecting or eliminating infection.

4. Herd Infection Rate - Not more than 1 percent of the herds or one herd, whichever is greater, shall have been found to be infected during the testing period. There must be no known foci of cattle brucellosis in the area at the time of certification.

5. Suspects - Animals classified as suspects shall be tested at 30-60 day intervals one or more times until the animals' status can be reasonably determined. The various supplemental tests (ME, RIV, CF, and APA at pH 3.50, pH 3.25, and/or pH 3.0, etc.) shall be conducted and the results evaluated by a brucellosis epidemiologist and a determination made that an infection does not exist before the surveillance on suspects is dropped. If the suspects requiring retest are not available, then a complete herd test is necessary.

6. Area Status, if Excessive Infection Rates Occur - If an area does not qualify for initial certification because of excessive herd or animal infection rates, then a new testing period must be established. Areas failing to qualify for recertification because of excessive herd or animal infection rates will revert to modified certified status. If the necessary testing can be accomplished to qualify the area for recertification within 6 months after the due date, consideration will be made for reinstating such an area. For both initial and recertification, all cattle herds in which brucellosis has been known to exist must be legally released from quarantine prior to certification. In addition, all herds of other species of domestic livestock in which brucellosis has been found or suspected must be tested negative, slaughtered, or quarantined, leaving no known foci of infection in any species uncontrolled at the time of certification. If the annual review required to maintain statewide Certified Brucellosis-Free status indicates excessive herd infection rates within individual counties, the Certified Brucellosis-Free status of those counties will be removed with 10 days notice.

7. Other Considerations - A concerted effort through effective screening programs and extensive epidemiologic investigations to locate infection and to eradicate the disease is required. All suspicious BRT and MCT reactor herds must be tested, and all herds affected with brucellosis shall have been legally released from quarantine. The official tube agglutination test or the card test shall be used in establishing and maintaining Certified Brucellosis-Free Areas, except that samples can be screened at 1:25 dilution using the plate agglutination test. Market cattle test samples showing a standard agglutination titer at 1:25 or above shall be tested further by use of the supplemental tests and the results evaluated by a brucellosis epidemiologist in arriving at a diagnosis. All of the results are to be furnished to the State of origin. Those animals requiring a followup herd blood test must be successfully traced to the herd of origin as indicated in A-2, b above.

Herds which do not progress favorably under routine testing procedures may be considered for enrollment in a brucellosis problem herd program under the direct supervision of a trained brucellosis epidemiologist. Such enrollment must be for the eradication of brucellosis from the herd and may include altered testing schedules, management practices, supplemental testing, etc., as approved by the owner and officials in charge of program activities in the State.

8. Movement of Cattle Into or Within Certified Brucellosis-Free Areas for the Following Purposes:

a. Feeding:

1. Movement into Quarantined Feedlots - Cattle originating in any herd in any area may be consigned without test directly into a quarantined feedlot or to a public stockyard or specifically approved stockyard for sale and shipment to such quarantined feedlot. Cattle originating from herds known to be affected or from unqualified herds in noncertified areas may not be diverted en route for any other purpose.

2. Movement into Other Feedlots - Cattle consigned to feedlots, other than quarantined feedlots, must originate from herds not known to be affected with brucellosis from certified areas, and from qualified herds in noncertified areas. All such cattle must be maintained in isolation, separate and apart from all breeding stock.

b. Immediate Slaughter - Cattle originating in any herd in any area may be consigned without test for immediate slaughter directly to a slaughtering establishment or to a public stockyard or specifically approved stockyard for sale and shipment to such slaughtering establishment. Cattle originating from herds known to be affected or from unqualified herds in noncertified areas may not be diverted en route for any other purposes. Cattle consigned for sale to slaughter at the first concentration point may not be diverted to a second concentration point for resale unless tested negative at the first concentration point.

c. Breeding or Purposes Other Than 9a or 9b.

1. Movement of Cattle from Certified Brucellosis-Free Herds or Areas - No test requirements.

2. Movement of Cattle from Modified Certified Areas - Such cattle must be tested for brucellosis within 30 days prior to movement or at the first concentration or assembly point upon arrival. "Upon arrival" means either testing before the sale or after the sale provided all cattle consigned are individually identified and traceable to the consignor and/or the herd of origin. Cattle from Certified Brucellosis-Free herds, cattle of the beef breeds less than 24 months of age, and of the dairy breeds less than 20 months of age as evidenced by the presence of the first pair of permanent incisor teeth, that are not parturient (springers) or postparturient from herds on lots not known to be affected with brucellosis are exempt from this test requirement.

3. Movement of Cattle from Noncertified Areas - Such cattle must originate in qualified herds and pass a negative test for brucellosis not less than 30 days from the date of herd qualification and within 30 days of the date of movement. Cattle of beef breeds less than 24 months of age and of dairy breeds less than 20 months of age as evidenced by the presence of the first pair of permanent incisor teeth, that are parturient (springers) or postparturient and steers, and spayed heifers from qualified herds in noncertified areas are exempt from this test requirement.

d. All animals in herds or lots tested for brucellosis in which reactors are disclosed must be handled in accordance with the provisions of the Uniform Methods and Rules, part II, paragraph K (Movement of Quarantined and Exposed Animals).

CHAPTER II—SWINE BRUCELLOSIS

Part I—Definitions

A. REACTOR—Any swine that disclose complete STT agglutination reactions to the blood titer dilution of 1:100 or higher. Any swine in an infected herd or on an incomplete test of a herd of unknown status having a complete reaction in the 1:25 dilution or higher. Any swine disclosing a positive card test reaction or are found infected by other diagnostic procedures.

B. SUSPECT—Card test positive swine disclosed in a herd which is otherwise serologically, bacteriologically, and epidemiologically negative may be held under herd quarantine until subjected to subsequent tests to determine the status of the animals.

C. NEGATIVE—Any swine from an infected herd or herd of unknown status that disclose a STT agglutination reaction of less than complete agglutination in the blood titer dilution of 1:25 or that has no reaction to the card test.

Any swine from a validated herd, a herd not known to be infected in a validated area, or on a complete herd test that discloses a STT agglutination reaction of less than complete agglutination in the blood titer dilution of 1:100 or that has no reaction to the card test.

D. HERD TEST—The herd test shall include all breeding swine 6 months of age and older. All swine being held for feeding purposes, separate and apart from breeding swine, are exempted from herd test requirements. All swine tested shall be identified with an eartag, tattoo, or other permanent identification.

E. FEEDLOT—A confined drylot area for finish feeding swine on concentrated feed with no facilities for pasturing or grazing. All swine in feedlots shall be held separate and apart from all breeding swine.

F. MARKET TEST SWINE—Sows, boars, and stags moving in trade through auction markets, stockyards, buying stations, or to slaughter establishments; also those sows, boars, and stags assembled at farms or ranches that are being readied for immediate movement to markets, stockyards, or slaughtering establishments or other sales.

G. SUCCESSFUL TRACEBACK OF REACTORS—A successful traceback occurs when the premises or herd of origin of a market test reactor is located and the herd is tested. If the herd has been dispersed or a significant proportion of the herd has been dispersed, the herds of destination of these dispersed animals must be located and the brucellosis status of these dispersed animals established by blood test to claim a successful traceback. Further testing in the herd of destination should be conducted as is deemed necessary. If all animals at the premises of origin were sold for slaughter, a successful traceback can also be claimed. However, if some animals were not sold for slaughter, then the animals sold for return to farms must be traced and tested at destination to claim successful traceback. Tracing to dealers, feedlots, commission firms, and such are not considered successful tracebacks of reactors.

H. EXPOSED SWINE—Swine that are part of a known infected herd or have been in contact with brucellosis reactors in marketing channels for periods of 24 hours or periods of less than 24 hours if the reactor has recently aborted, farrowed, or has a vaginal or uterine discharge are considered exposed regardless of the blood test results and must be placed under quarantine and restricted pending slaughter or testing after return to herd of origin.

Part II—Recommended Procedures

A. LABORATORIES—Blood samples are to be tested only by cooperating State-Federal laboratories or such persons as may be authorized to conduct the card test. All card positive samples tested at other than cooperating State-Federal laboratories shall be promptly submitted and confirmed at the cooperating State-Federal laboratory.

B. REPORTING—Activities conducted privately or as part of the official Brucellosis Eradication Program, must be reported immediately to State-Federal cooperating agencies.

C. SUPERVISION—The official Brucellosis Eradication Program shall be supervised by full-time State or Federal veterinarians.

D. QUARANTINE—All swine in infected herds must be confined to the premises until freed of brucellosis or sold for slaughter under permit. Two consecutive negative herd tests are required for release of quarantine with the first test occurring not less than 30 days after the removal and slaughter of all reactors and the second test to occur not less than 90 days following the first negative test. Herds of origin of MST reactors which fail to reveal additional reactors on a test of the entire herd would not be required to be held under quarantine for additional testing unless evidence suggestive of brucellosis infection or exposure thereto is present.

E. RETEST OF INFECTED HERDS—Variable according to herd plan selected (See part VI).

F. CLEANING AND DISINFECTION—Premises shall be cleaned and disinfected under regulatory supervision within 15 days following the removal of reactors or the entire herd for slaughter. An extension of time may be considered under extenuating circumstances. Exemptions from cleaning and disinfection requirements, when indicated, can be authorized by the cooperating State-Federal officials directing the brucellosis program activities within the State.

G. CLASSIFICATION OF SWINE

1. Card Test - Card test results are classified as either negative or positive.

2. Standard Tube Test - The blood titers of swine tested by the STT method are classified by use of the following:

If all of the following apply:

- a. No animals on test with titers greater than 1:100,
- b. Not a retest of an infected herd, and
- c. Complete herd test or incomplete test of a validated herd.

If one or more of the following apply:

- a. One or more animals on test with titer greater than 1:100,
- b. Retest of an infected herd, or
- c. Incomplete test of a herd of unknown status.

Then use the following:

1:25	1:50	1:100	
I	—	—	NEGATIVE
+	—	—	NEGATIVE
+	I	—	NEGATIVE
+	+	—	NEGATIVE
+	+	I	NEGATIVE

Then use the following:

1:25	1:50	1:100	
I	—	—	NEGATIVE
+	—	—	REACTOR
+	I	—	REACTOR
+	+	—	REACTOR
+	+	I	REACTOR
+	+	+	REACTOR

3. Semen Plasma Test - The semen plasma test is approved as an official test in boars used for artificial insemination when used in conjunction with the card test and/or the standard tube test. The classification of such animals shall be based on the maximum agglutination titer of either test.

H. IDENTIFICATION OF REACTOR SWINE—Reactor swine are to be permanently identified by placing an approved reactor eartag in the left ear.

I. IMMEDIATE SLAUGHTER OF REACTORS—Reactor swine must be sold for slaughter and removed from the premises under State or Federal permit within 15 days of the date of identification (reactor herds under plan 2, part VI, may handle reactors according to recommended procedures of the plan.) Reactors shall remain on the premises where discovered until a State or Federal permit for movement to slaughter has been obtained. Movement for immediate slaughter must be to a slaughtering establishment where Federal or State inspection is maintained or to a State or Federal approved market for sale to such slaughtering establishment. Reactor swine upon delivery to the slaughtering establishment shall be slaughtered as soon as practical. The time may be extended for reasons mutually acceptable to the cooperating State and Federal officials in charge.

J. MOVEMENT OF QUARANTINED AND EXPOSED SWINE—Quarantined and exposed swine must be moved under permit and can be moved for immediate slaughter or returned to the herd of origin. When moved, the swine must be maintained separate and apart from all other classes of livestock. When moved to other than the herd of origin, exposed animals will be individually identified by eartag and the number recorded on the permit.

K. ENTERING PREMISES—Persons engaged in the Brucellosis Eradication Program shall be authorized to enter premises to carry out eradication procedures.

L. SERVICES TO OWNER—Services should be rendered without expense to livestock owners as long as funds for such purposes are available and such services are not required to be performed at owner's expense by State regulations.

Contracts with accredited veterinarians, nonprofessionals, other State and Federal agencies, or with management of privately owned firms are to be used as needed to assist State and Federal animal health personnel accomplish necessary sample collections, animal identification, and other activities.

Part III—Participation in Herd or Area Validation Plans

A. OBTAINING INITIAL VALIDATION STATUS—To obtain initial validation status, the herds or area must use one or more of the accepted methods listed in part IV, or V, for qualifying the herds or area and must meet all of the qualifying standards given under part IV, or V.

B. MAINTAINING VALIDATION STATUS—State and Federal officials in charge of the program activities in each State are responsible for a continuous evaluation on the efficiency of local procedures for locating and eliminating infected swine. The minimum standards as described for each plan in parts IV, and V, Brucellosis Eradication Uniform Methods and Rules, must be met or exceeded throughout the validation period to maintain continuous status.

C. TERMINATING VALIDATION STATUS—Herd or area validation status may be terminated at any time during the period if the herd or area does not maintain adequate surveillance measures or fails to comply with quarantine, testing schedules, initial testing schedules for suspicious herds detected by the surveillance measures, or proper disposal of reactors unless legal action against the livestock owner has been initiated by State's attorneys and is in progress.

D. REINSTATEMENT OF VALIDATION STATUS—When herds or areas lose validation status because of deficiencies in levels of surveillance or in procedures necessary for locating infected herds, controlling infected and exposed swine, and eliminating infected swine as prescribed under the various plans and procedures, the validation status may be reinstated upon presentation of sufficient evidence showing that the deficiencies have been corrected. Areas in which the deficiencies have not been corrected within 6 months of the termination of the status must qualify for initial validation.

Part IV—Validated Brucellosis-Free Herds of Swine

A. QUALIFYING METHODS—A herd may qualify by one or more of the following methods:

1. Complete Herd Test - Swine herds may be initially validated or revalidated on a negative herd test of all breeding swine 6 months of age and over in the herd.

2. Market Swine Testing Program (MST)

Initial Validation: MST not used.

Revalidation: A minimum of 20 percent of the adult breeding swine (6 months of age and over) in the herd must be tested during the validation period with at least one-half of the MST coverage obtained during the last 6 months of the period. This requires credit back to farm of origin to maintain individual validated herd status. The herd of origin of market swine reactors will be quarantined and the validated herd status suspended until a herd test is conducted. The herd test should be conducted within 30 days of disclosure of the market reactor. Individual herd records for the market swine test results to support this method of validation must be maintained by the State cooperator.

B. QUALIFYING STANDARDS

1. Size of Unit - Herd basis—applies to all offspring including specific pathogen-free pigs from such herds.

2. Length of Status - 12 months.

3. Testing Period -

Initial Validation: A herd can be validated on the results of the one negative herd test.

Revalidation: A negative test of all eligible swine conducted within 10 to 14 months of the last validation date or establish that at least 20 percent of adult breeding swine were tested under a market swine testing program during the year and that at least one-half of sampling occurred during the last 6 months of the validation period.

4. Herd Infection Rate - The individual herd must disclose no evidence of infection at time of validation or revalidation.

5. Animal Infection Rate - The individual animals must disclose no evidence of infection at the time of herd validation or revalidation.

6. Suspects - Caru test positive swine disclosed in a herd which is otherwise serologically, bacteriologically, and epidemiologically negative may be held under herd quarantine until subjected to subsequent tests to determine the status of the animals.

7. Herd Status, if Infection Occurs - When one or more reactors are disclosed in a validated herd or in a herd under test for initial validation, it shall be considered infected and the quarantine and retest provisions in part II, D and E. shall apply.

Initial Validation: A herd qualifies for initial Validated Brucellosis-Free status when free of infection, all provisions for release of quarantine have been met, and when the additional provisions required under part IV, A-1, have been met.

Revalidation: If on a complete or partial test of a validated herd, reactors are disclosed, then herd validation status is terminated until all provisions for release of quarantine have been met, and until the additional provisions for initial Validated Brucellosis-Free herd status required under part IV, A-1, have been met.

Herd retests for quarantine release and to fulfill the provisions required under part IV, A-1, may be conducted concurrently.

8. Movement of Swine into Validated Herds from:

a. Validated Brucellosis-Free Herds - No test requirement.

b. Nonvalidated herds in any area and not under quarantine and added for breeding purposes. Individual animals must have two consecutive tests at least 60 days apart with the second test within 30 days of movement. With bred sows and gilts the second test should be at least 30 days after farrowing.

c. Feedlots - Swine from feedlots may not be added to Validated Brucellosis-Free Herds. However, swine may be consigned to feedlots on validated herd premises without test provided such swine are held in isolation separate and apart from all breeding stock.

d. Slaughter Channels - Slaughter swine may not be added to Validated Brucellosis-Free Herds.

9. Movement of Swine Semen for Artificial Insemination into Validated Herds from:

a. Purebred Herds - Purebred herds from which semen is collected must be validated on the basis of herd blood tests.

b. Commercial Boar Studs - Commercial boar studs from which semen is collected must be validated on the basis of herd blood tests and herd semen agglutination tests.

Part V—Validated Brucellosis-Free Areas

A. QUALIFYING METHODS—An area may qualify by one or more of the following methods:

1. Market Swine Testing Program

a. Coverage

Initial Validation: At least 15 percent (10 percent per year) of the breeding swine 6 months of age or older from each herd, during the 18-month testing period.

Revalidation: At least 30 percent (10 percent per year) of the breeding swine 6 months of age or older from each herd, during the 3-year revalidation period.

b. Reactors - Minimum of 90 percent of the reactors must be successfully traced to the herd of origin and a herd test conducted.

c. Reporting Results - All MST reactors, including the successful and nonsuccessful tracebacks, and tests of herds of origin of reactors must be reported in the area validation request.

2. Complete Herd Test - Negative herd test of all breeding swine 6 months of age or older in each herd which has not qualified for area validation under part V, A-1. The complete herd test must be conducted within the 18-month period prior to the date (re)validation is requested for the area.

3. Alternate Method for Statewide Validation

Initial Validation: The entire State may be validated if these alternative provisions are followed for a 1-year period.

a. All herds selling breeding stock are tested and declared validated.

b. 90 percent of all sows, boars, and stags are tested at slaughter; a minimum of 90 percent of the reactors must be successfully traced to the herd of origin and a herd test conducted; all MST reactors, including successful and nonsuccessful tracebacks, and tests of herds of origin of reactors must be reported in the area validation request.

c. When reactors are found, the herd of origin is tested under one of the plans listed in part VI or sent to slaughter within 30 days.

Revalidation: The entire State may be revalidated if the following procedures are carried out:

a. 90 percent of all sows, boars, and stags are tested at slaughter during each year of the 3-year testing period; a minimum of 90 percent of the reactors must be successfully traced to the herd of origin and a herd test conducted; all MST reactors, including the successful and nonsuccessful tracebacks, and tests of herds of origin of reactors must be reported in the area revalidation request.

b. When reactors are found, the herd of origin is tested under one of the plans listed in part VI or sent to slaughter within 30 days.

c. When reactors are found, the herd of origin is tested under one of the plans listed in part VI or sent to slaughter within 30 days.

B. QUALIFYING STANDARDS

1. Size of Area - Usually county; may be other political subdivision. The extent of the area shall be determined by the cooperating State and Federal agencies.

2. Length of Status - 3 years.

3. Testing Period

Initial Validation: 18 months immediately preceding request for validation when qualifying by the market testing program or complete herd test method. Twelve months immediately preceding request for validation when alternate method is used.

Revalidation: 18 months to 3 years depending upon method of qualifying herds.

4. Herd Infection Rates

Initial Validation: Not more than 3 percent of the herds or one herd, whichever is greater, shall have been found to be infected during the qualification period. There must be no known foci of swine brucellosis in the area at the time of validation.

Revalidation: The accumulated number of infected herds in a Validated Brucellosis-Free Area may not exceed 5 percent of the herds in the area or one herd, whichever is greater, over the 3-year validation period. There must be no known foci of swine brucellosis in the area at the time of revalidation.

5. Animal Infection Rates - Animal infection rates not considered.

6. Suspects - Card test positive swine disclosed in a herd which is otherwise serologically, bacteriologically, and epidemiologically negative may be held under herd quarantine until subjected to subsequent tests to determine the status of the animals.

7. Area Status, if Excessive Infection Rates Occur - If an area does not qualify because of excessive herd infection rates, a new testing period must be established. All herds in which brucellosis has been known to exist must be legally released from quarantine prior to area validation.

8. Movement of swine into or within Validated Brucellosis-Free Areas for the following purposes:

a. Feeding swine consigned to feedlots may move into or within validated areas without test provided such swine are maintained in isolation separate and apart from all breeding stock.

b. Slaughter - Swine consigned directly to slaughtering establishments or specifically approved stockyards for sale and shipment to such slaughtering establishments may move into or within validated areas without test. Such swine may not be diverted en route for any other purpose.

c. Breeding or purposes other than 8a and 8b.

1. Swine from Validated Brucellosis-Free Herds or herds in Validated Brucellosis-Free Areas - No test requirements. Swine must be moved directly and must not have been in contact with swine of lesser status.

2. Individual swine from nonvalidated herds in nonvalidated areas must have a negative test within 30 days prior to the date of entry into a Validated Brucellosis-Free Area. These swine must be held in isolation and pass an additional test conducted between 60 and 90 days from the date of the test for entry before being added to the herd.

9. Movement of Swine Semen for Artificial Insemination into Validated Areas from:

a. Purebred herds from which semen is collected must be validated on the basis of herd blood tests.

b. Commercial boar studs from which semen is collected must be validated on the basis of herd blood tests and herd semen agglutination tests.

Part VI—Plans for Eradicating Brucellosis From Infected Swine Herds

If infection is disclosed in swine herds, one of the following plans should be selected for eradicating the disease. Infected herds under test for area validation status should also choose one of these plans to eradicate brucellosis from the herd.

A. PLAN 1—This plan is recommended for commercial herds found infected. The following procedures should be carried out:

- a. Market the entire herd for slaughter as soon as practicable.
- b. Clean and disinfect houses and equipment.
- c. Restock premises with animals (from Validated Brucellosis-Free Herds) placing them on ground that has been free of swine for at least 60 days.

B. PLAN 2—This plan is recommended for use in infected purebred herds only where it is desired to retain valuable blood lines. The following procedures should be carried out:

- a. Separate pigs from sows at 42 days of age or younger and isolate.
- b. Market infected herd for slaughter as soon as practicable. Infected sows should not be rebred and should be slaughtered as soon as possible. Complete isolation of infected animals is essential. The separated weanling pigs form the nucleus for establishment of the infection-free herd.
- c. Test the gilts to be used for the following season about 30 days before breeding. Save only the gilts that are negative. Breed only to negative boars.
- d. Retest the gilts after farrowing and before removing them from individual farrowing pens. Should reactors be found, they should be segregated from the remainder of the herd and slaughtered as soon as possible. Select only pigs from negative sows for breeding gilts.
- e. If reactors are found in step (d), the process is repeated.
- f. Following two consecutive negative tests not less than 90 days apart, the herd is eligible for quarantine release.

C. PLAN 3—This plan is not recommended in general, but it has been found useful in herds where only a few reactors are found and where no clinical symptoms of brucellosis have been noted. Carry out the following procedures:

- a. Market reactors for slaughter.
- b. Retest herd at 30-day intervals removing reactors for slaughter until the entire herd is negative.
- c. If the herd is not readily freed of infection, abandon this plan in favor of plan 1 or plan 2.
- d. Following two consecutive negative tests not less than 90 days apart, the herd is eligible for quarantine release.

Prepared by
Veterinary Services
Animal and Plant Health Inspection Service
U.S. Department of Agriculture
Hyattsville, Maryland 20782

Replaces APHIS 91-1, March 1975

